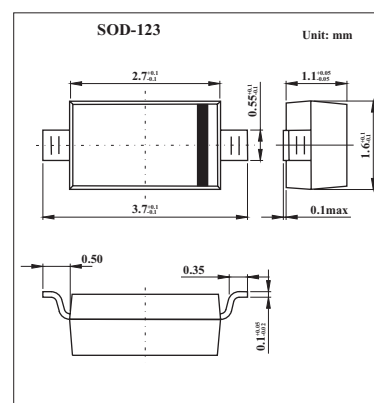


## Variable Capacitance Diode for VCO

## HVD380B

## ■ Features

- High capacitance ratio. ( $n = 1.70$  min)
- Low series resistance. ( $r_s = 0.80 \Omega$  max)
- Super small Flat Package (SFP) is suitable for surface mount design.

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	15	V
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current	$I_{R1}$	$V_R = 15 \text{ V}$			10	nA
	$I_{R2}$	$V_R = 15 \text{ V}, T_a = 60^\circ\text{C}$			100	
Capacitance	$C_1$	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$	0.88		3.12	pF
	$C_3$	$V_R = 3 \text{ V}, f = 1 \text{ MHz}$	1.66		1.795	
	$C_4$	$V_R = 4 \text{ V}, f = 1 \text{ MHz}$	1.7		1.471	
Capacitance ratio	$n_1$	$C_1 / C_3$	2.08		1.84	
	$n_2$	$C_1 / C_4$			2.25	
Series resistance	$r_s$	$V_R = 1 \text{ V}, f = 470 \text{ MHz}$			0.8	$\Omega$

## ■ Marking

Marking	J
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